



2019 2nd Quarter Report to the Lowell, Massachusetts Board of Health

Reporting Period: April 1 2019 – June 30 2019

- **INTRODUCTION:**

This is the 2nd Qtr. 2019 Report for the Lowell Board of Health.

Any questions or concerns surrounding the contents of this report should be directed to:

Trinity EMS, Inc.

ATTN: Kirk Brigham, Director of Clinical Services

PO Box 187

Lowell, MA 01853

Email: kbrigham@trinityems.com

Thank you,

Management Team

Trinity EMS, Inc

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TIMES:	Trinity BLS Q3 2018	Trinity ALS	LGH ALS	Trinity BLS Q4 2018	Trinity ALS	LGH ALS
Fractile %	94.72%	87.23%	93.79%	94.03%	88.98%	92.12%
Avg out of chute	23 seconds	55 seconds	48 seconds	25 sec	51 sec	59 sec
Avg resp time	4 min 2 sec	5 min 43 sec	5 min	4 min 9 sec	5 min 9 sec	5 min 12 sec
Avg on scene time	12 min 27 sec	15 min 10 sec	14 min 53 sec	12 min 19 sec	13 min 46 sec	14 min 12 sec
Avg transport time	6 min 48 sec	8 min 3 sec	12 min 13 sec	5 min 36 sec	8 min 45 sec	10 min 41
# of events >7:59 response time	300*	28	146	310	27	145
# of events using Non Trinity BLS	0			0		
	Trinity BLS Q1 2019	Trinity ALS	LGH ALS	Trinity BLS Q2 2019	Trinity ALS	LGH ALS
	92.75%	86.42%	91.79%	94.28%	88.21%	93.32%
Avg out of chute	49 sec	55 sec	59 sec	22 sec	56 sec	48 sec
Avg resp time	5 min 16 sec	6 min 55 sec	6 min 8 sec	4 min 7 sec	5 min 47 sec	5 min 5 sec
Avg on scene time	11 min 01 sec	12 min 29 sec	13 min	10 min 58 sec	10 min 22 sec	11 min 22 sec
Avg transport time	7 min 21 sec	8 min 29 sec	13 min 52 sec	6 min 41 sec	6 min 45 sec	10 min 34 sec
# of events >7:59 response time	385	32	159	315	25	119
# of events using Non Trinity BLS	1	<--This lost call was the 9th emergency and was an alpha level call. This was given away in error		0		

			Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019
TEMS BLS			94.09%	92.48%	91.53%	94.04%	94.72%	94.03%	92.75%	94.28%

BLS OUTLIERS:	2017 Total		2018 Total		Last 4 Qs Total		Q3 2018		Q4 2018		Q1 2019		Q2 2019	
1st Emergency	243	21%	582	25%	331	25%	68	20%	83	28%	100	26%	80	25%
2nd Emergency	210	18%	641	27%	372	28%	91	27%	79	26%	99	26%	103	33%
3rd Emergency	206	18%	413	18%	231	17%	56	17%	55	18%	71	18%	49	16%
4th Emergency	166	15%	292	12%	161	12%	41	12%	40	13%	50	13%	30	10%
5th Emergency	191	17%	228	10%	126	9%	37	11%	24	8%	41	11%	24	8%
6th Plus Emergency	124	11%	199	8%	114	9%	42	13%	19	6%	24	6%	29	9%
			1496		1335		335		300		385		315	
BLS REASONS OVER 7:59:	2017 Yearly Total		2018 Total		Last 4 Qs Total		Q3 2018		Q4 2018		Q1 2019		Q2 2019	
Total	1189		1496		1335		335		300		385		315	
Couldn't locate house/lost	22	2%	42	3%	46	3%	8	2%	10	3%	14	4%	14	4%
Crew took long route	60	5%	129	9%	124	9%	20	6%	43	14%	34	9%	27	9%
Distance	555	47%	365	24%	317	24%	84	25%	83	28%	77	20%	73	23%
Dispatch delay	56	5%	52	3%	73	5%	10	3%	0	0%	37	10%	26	8%
Highway	32	3%	12	1%	9	1%	2	1%	2	1%	4	1%	1	0%
Out of chute	188	16%	189	13%	155	12%	44	13%	36	12%	46	12%	29	9%
TEMS Dispatch error	45	4%	101	7%	87	7%	38	11%	29	10%	8	2%	12	4%
Weather	5	0%	71	5%	30	2%	2	1%	4	1%	24	6%	0	0%
EMD			232	16%	215	16%	50	15%	42	14%	63	16%	60	19%
911 Call volume	115	10%	253	17%	218	16%	63	19%	41	14%	64	17%	50	16%
others/blank	111	9%	50	3%	61	5%	14	4%	10	3%	14	4%	23	7%

New for Q2 2019

BLS OUTLIERS:	2017 Total		2018 Total		Last 4 Qs Total		Q3 2018		Q4 2018		Q1 2019		Q2 2019	
Witin the standard (7:59 >)					20382	93.97%	5381	94.74%	4885	94.03%	4928	92.77%	5188	94.28%
0800-0859					667	3.08%	142	2.50%	162	3.12%	205	3.86%	158	2.87%
0900-0959					350	1.61%	93	1.64%	75	1.44%	104	1.96%	78	1.42%
1000-1059					155	0.71%	35	0.62%	34	0.65%	44	0.83%	42	0.76%
1100-1159					70	0.32%	15	0.26%	21	0.40%	15	0.28%	19	0.35%
1200 plus					66	0.30%	14	0.25%	18	0.35%	16	0.30%	18	0.33%
											see below		see below	
12 PLUS BREAKOUT	2017 Total		2018 Total		Last 4 Qs Total		Q3 2018		Q4 2018		Q1 2019		Q2 2019	
911 Call volume (5th +)					26	39.39%	7	38.89%	6	33.33%	5	31.25%	8	0.15%
Crew got lost/couldn't find house					13	19.70%	3	16.67%	4	22.22%	3	18.75%	3	0.05%
EMD					10	15.15%	2	11.11%	3	16.67%	2	12.50%	3	0.05%
Highway call					3	4.55%	1	5.56%	0	0.00%	1	6.25%	1	0.02%
TEMS Dispatch error/delay					8	12.12%	0	0.00%	2	11.11%	4	25.00%	2	0.04%
Others					6	9.09%	1	5.56%	3	16.67%	1	6.25%	1	0.02%

The above new data points are in response to a request by the BOH made in May 2019. We went back and ran the data for the past 4 quarters so we could give context to the information.

Top: This breaks out all responses by BLS ambulances by minute. So 5,188 times in Q2 2019 it took a Trinity ambulance less than 7:59 (from call taken to arrival). 18 times in Q2 2019 it took more than 11:59 for a Trinity ambulance to arrive.

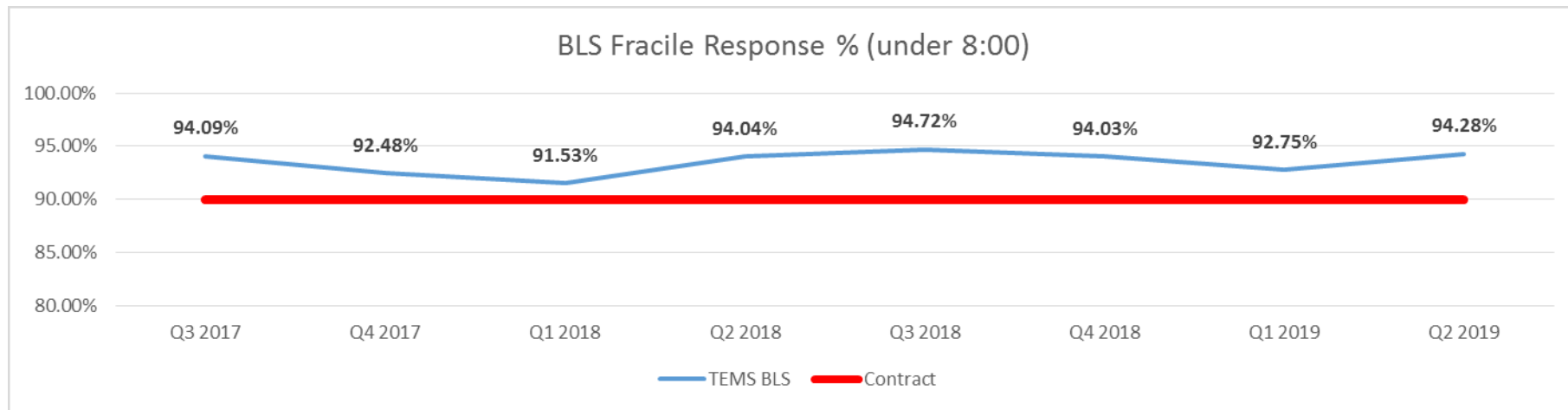
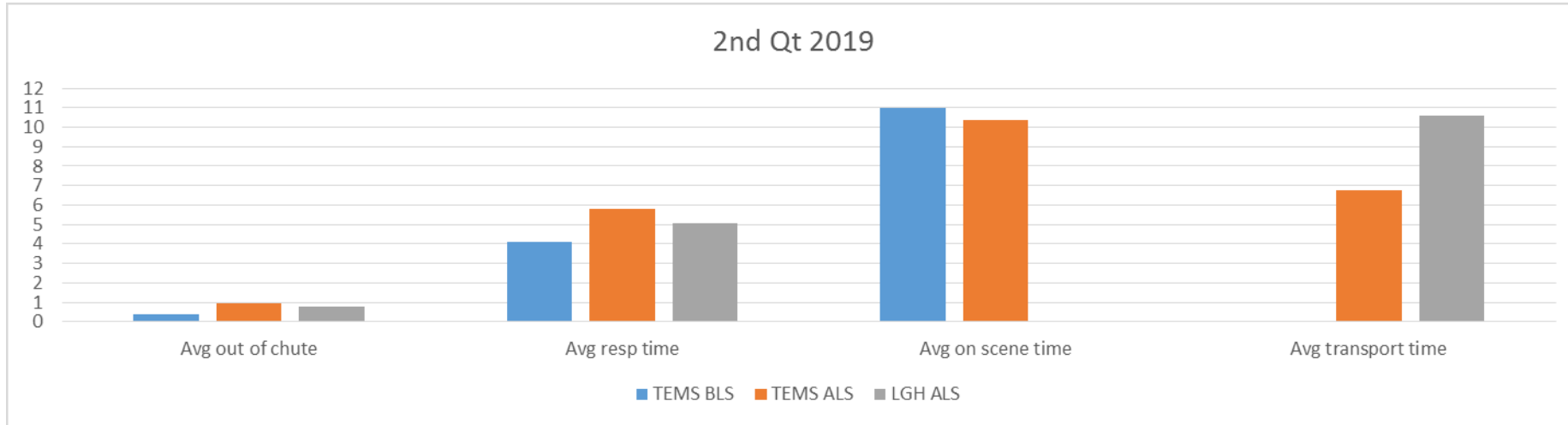
Bottom: This is the detailed breakout of just those responses that took longer than 11:59. 8 of the 18 times it took Trinity more than 11:59 the reason was 911 call volume (meaning there where at least 6 other responses going on in Lowell at that time.) 3 times EMD was the main reason it took more than 11:59.

Which % would you rather.
Event into total calls, or into only calls over 12 minutes?

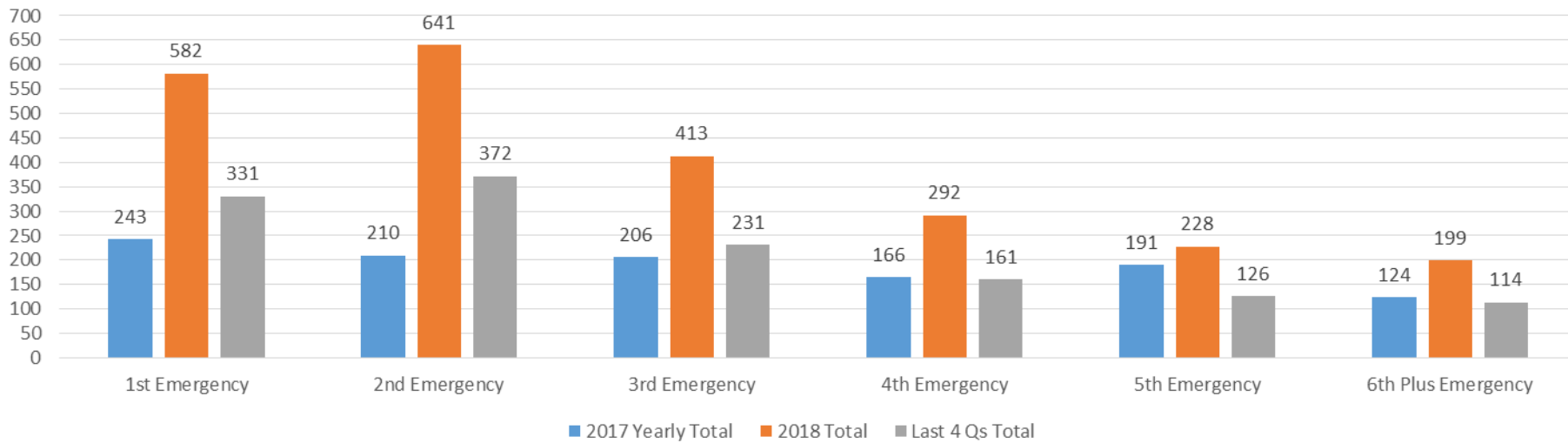
NO TRANSPORTS:	2017 Total		2018		Last 4 Qs Total		Q3 2018		Q4 2018		Q1 2019		Q2 2019	
Cancelled via ALS	308	4%	490	7%	488	7%	114	6%	123	7%	140	8%	111	6%
Cancelled via BLS	114	2%	107	1%	108	1%	26	1%	30	2%	25	1%	27	1%
Cancelled closer unit	150	2%	149	2%	91	1%	51	3%	17	1%	10	1%	13	1%
Cancelled by fam/staff	56	1%	48	1%	43	1%	1	0%	11	1%	15	1%	16	1%
Cancelled via Fire	579	8%	602	8%	589	8%	149	8%	148	8%	140	8%	152	8%
Cancelled via Police	1262	17%	1061	14%	1113	15%	331	17%	265	15%	233	14%	284	15%
No EMS needed	650	9%	870	12%	876	12%	246	12%	201	11%	238	14%	191	10%
No pt found	482	6%	519	7%	452	6%	149	8%	86	5%	99	6%	118	6%
Pt deceased on arrival	133	2%	151	2%	149	2%	40	2%	31	2%	43	2%	35	2%
Other	146	2%	22	0%	23	0%	3	0%	11	1%	2	0%	7	0%
Pt refusal	3607	48%	3341	45%	3440	47%	863	44%	841	48%	776	45%	960	50%

VOLUME:	2017		2018		Last 4 Qs		Q3 2018		Q4 2018		Q1 2019		Q2 2019	
Total responses (ALS & BLS)	29696		30318		30087		7799		7329		7462		7497	
Total ALS Responses	8196	28%	8511	28%	8397	28%	2119	27%	2134	29%	2150	29%	1994	27%
TEMS ALS Responses	871	11%	955	11%	874	10%	220	10%	219	10%	223	10%	212	11%
LGH ALS Responses	7325	89%	7556	89%	7523	90%	1899	90%	1915	90%	1927	90%	1782	89%
INCIDENTS:	21500		21807		21690		5680		5195		5312		5503	
BLS Incident	13304		12340		13293		3561		3061		3162		3509	
ALS and BLS Incident	8196		8467		8397		2119		2134		2150		1994	
Needle pick ups			728		584		274		133		100		77	
Non Emergent Lift assists			784		799		106		250		327		116	
TRANSPORTS:	2017		2018		Last 4 Qs		Q3 2018		Q4 2018		Q1 2019		Q2 2019	
Total Transports (ALS & BLS)	14781		16379		16303		4099		4005		4082		4117	
Total BLS Transports	11735	79%	13078	80%	13028	80%	3428	84%	3191	80%	3135	77%	3274	80%
Total ALS Transports	3046	21%	3301	20%	3275	20%	671	16%	814	20%	947	23%	843	20%
TEMS ALS Transports	434	14%	503	15%	451	14%	98	15%	121	15%	123	13%	109	13%
LGH ALS Transports	2612	86%	2798	85%	2824	86%	573	85%	693	85%	824	87%	734	87%
TRIAGE:	2017		2018		Last 4 Qs		Q3 2018		Q4 2018		Q1 2019		Q2 2019	
Total Triage	1102	13%	1178	14%	1178	14%	305	14%	342	16%	291	14%	240	12%
TEMS Triage	60	7%	57	6%	58	7%	18	8%	11	5%	13	6%	16	8%
LGH ALS Triage	1042	14%	1121	15%	1120	15%	287	15%	331	17%	278	14%	224	13%

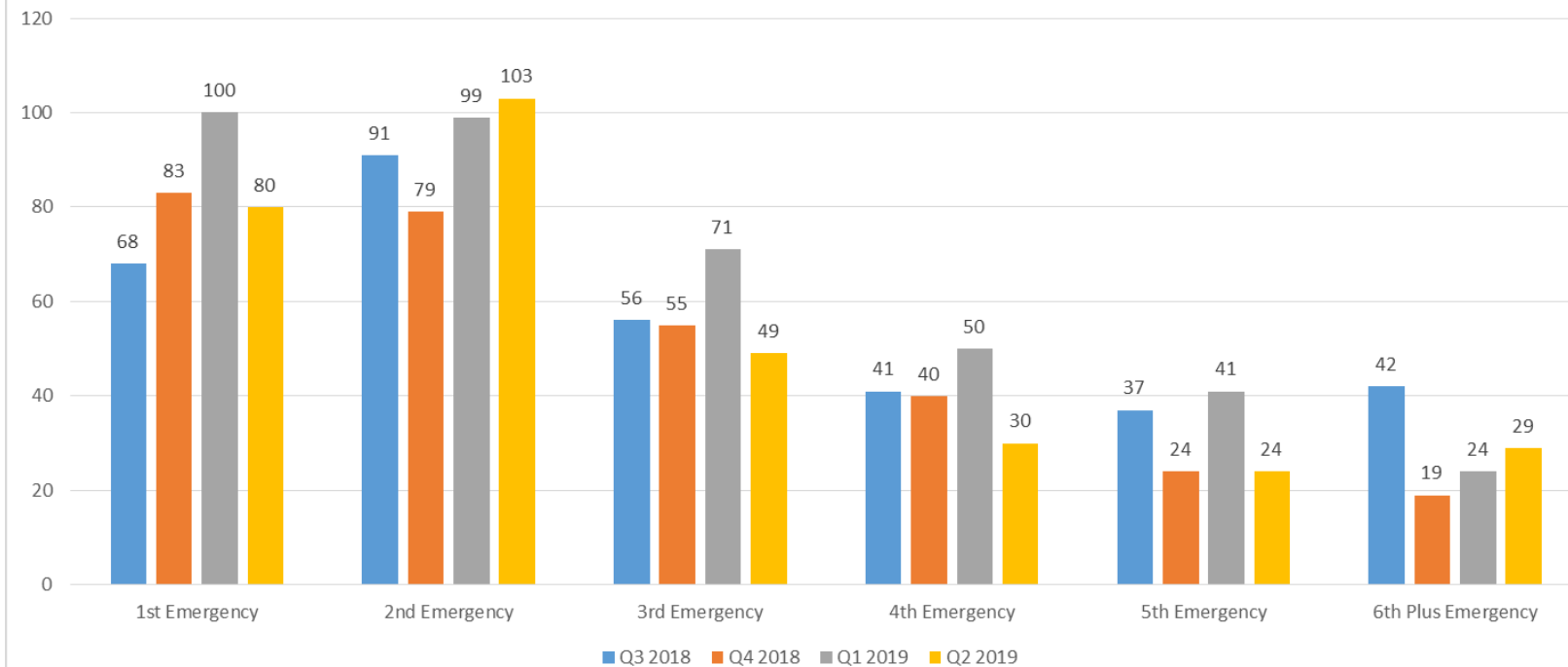
INTUBATIONS:	2017				2018				Last 4 Qs Total				Q3 2018				Q4 2018				Q1 2019				Q2 2019			
Trinity company total	48	of	98	49%	63	of	69	91%	68	of	77	88%	10	of	11	91%	14	of	17	82%	24	of	25	96%	20	of	24	83%
Trinity Lowell only	2	of	7	29%	10	of	10	100%	7	of	8	88%	1	of	1	100%	2	of	2	100%	3	of	3	100%	1	of	2	50%
LGH ALS Lowell only	166	of	174	95%	151	of	155	97%	149	of	153	97%	38	of	41	93%	30	of	31	97%	44	of	44	100%	37	of	37	100%
LGH Greater Lowell region													58	of	61	95%	67	of	69	97%	63	of	63	100%	70	of	71	99%
LGH ALS MAI* in Lowell only	55				62				Last 4 Qs Total				16 (24 system wide)				16 (24 system wide)				16(24 system wide)				20 (35 system wide)			
IO SUCCESS RATE:	2017				2018				Last 4 Qs Total				Q3 2018				Q4 2018				Q1 2019				Q2 2019			
Trinity company total	65	of	69	94%	81	of	81	100%	76	of	76	100%	13	of	13	100%	15	of	15	100%	26	of	26	100%	22	of	22	100%
Trinity Lowell only	6	of	6	100%	12	of	12	100%	8	of	8	100%	1	of	1	100%	2	of	2	100%	3	of	3	100%	2	of	2	100%
LGH ALS Lowell only	72	of	75	96%	83	of	83	100%	85	of	85	100%	21	of	21	100%	16	of	16	100%	28	of	28	100%	20	of	20	100%
Airways:	2017				2018				Last 4 Qs Total				Q3 2018				Q4 2018				Q1 2019				Q2 2019			
Trinity company wide- King tube success rate-post ETT failure				<div><div></div></div> ###								<div><div></div></div> ###	1	of	1	<div><div></div></div> 000%	3	of	3	<div><div></div></div> 000%	1	of	1	<div><div></div></div> 000%	3	of	3	<div><div></div></div> 000%
Trinity Lowell- King tube success rate-post ETT failure				<div><div></div></div> ###								<div><div></div></div> ###	0	of	0	<div><div></div></div> n a	0	of	0	<div><div></div></div> n a	0	of	0	<div><div></div></div> n a	0	of	0	<div><div></div></div> n a
* Intubation total- Total patients intubated/ Total Patients intubated attempted.																												
** Medication Assisted Intubation, in MA, this requires the use of a Paralytic which is controlled & monitored by a special project																												



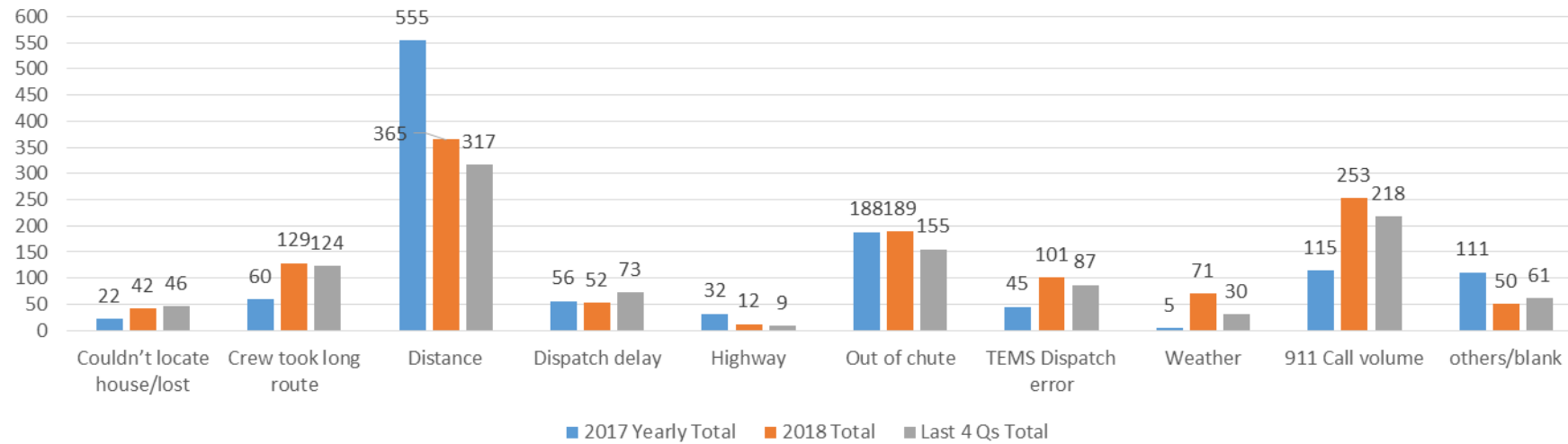
Q2 2019 BLS OUTLIERS: Yearly view



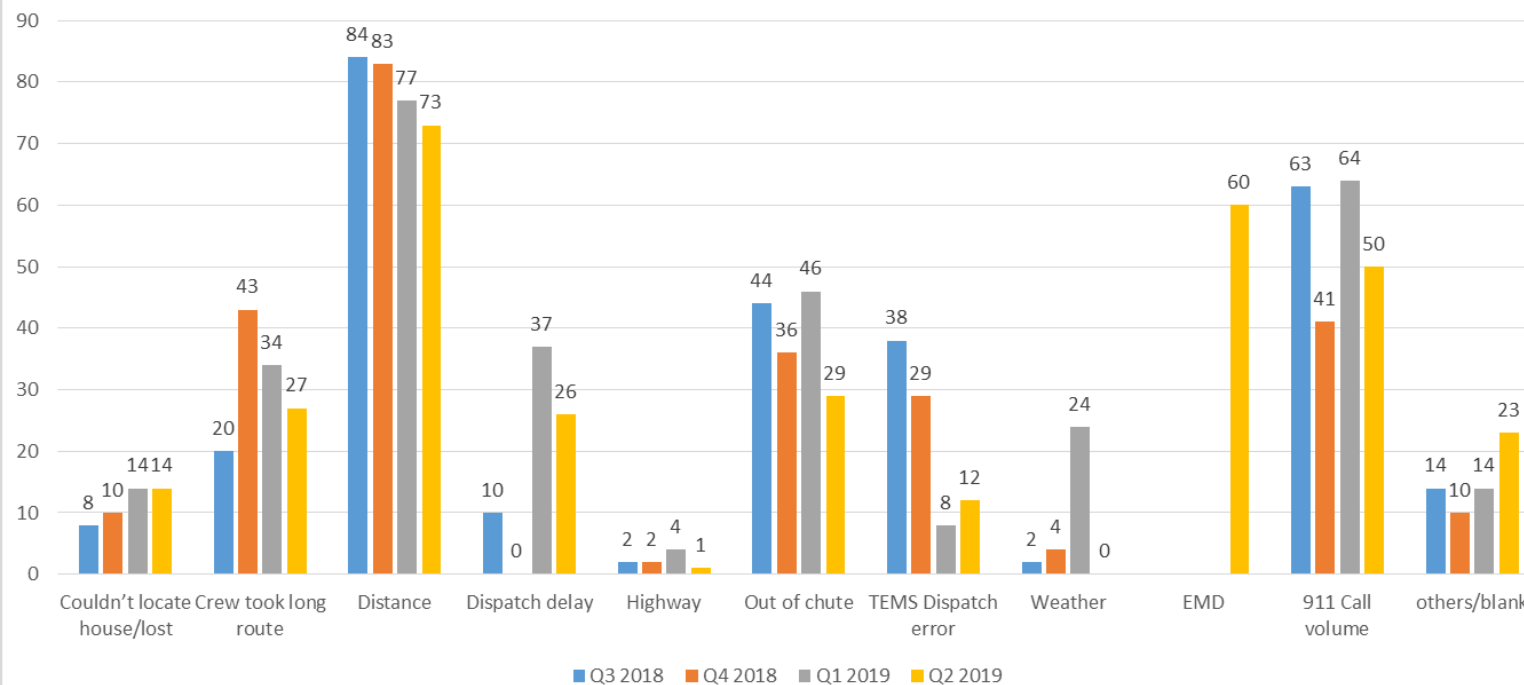
Q2 2019 BLS OUTLIERS: Qrts View



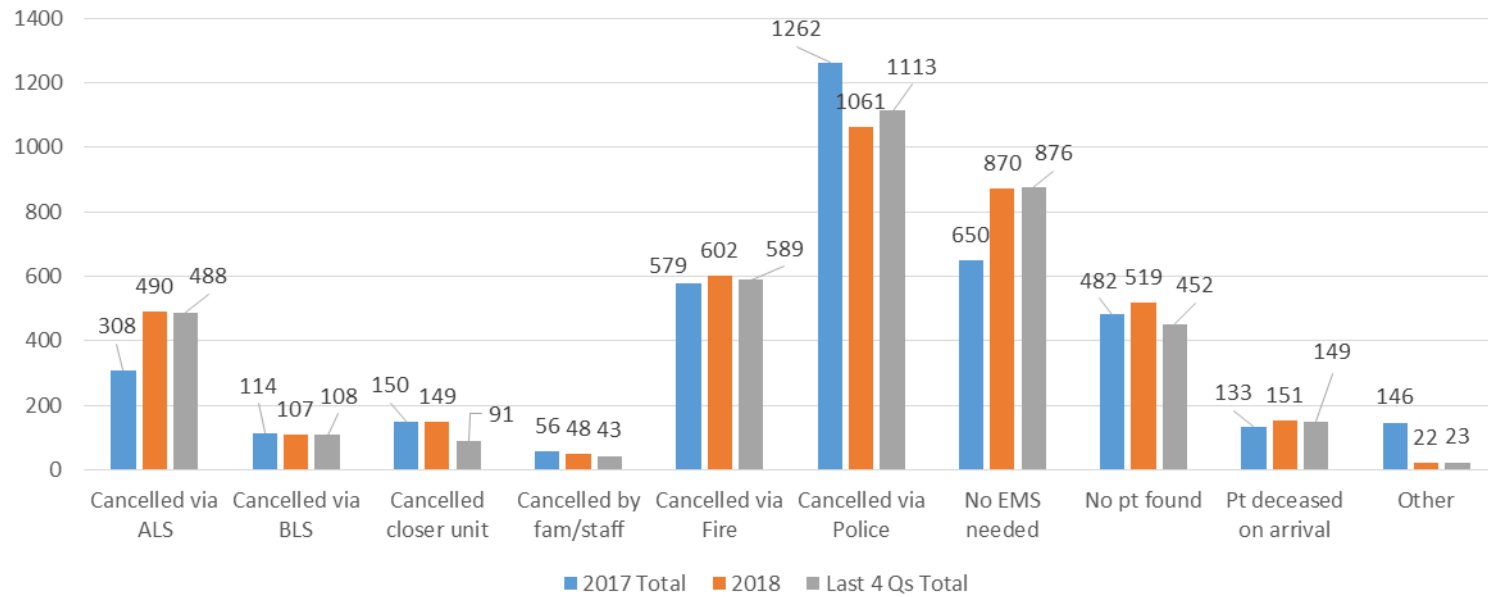
Q2 2019 BLS REASONS OVER 7:59: Yearly view



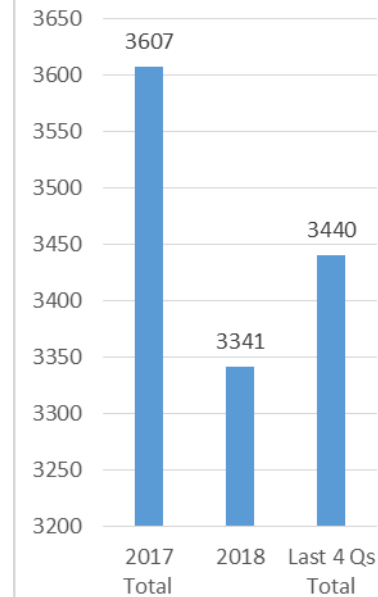
Q2 2019 BLS REASONS OVER 7:59: Qrts View



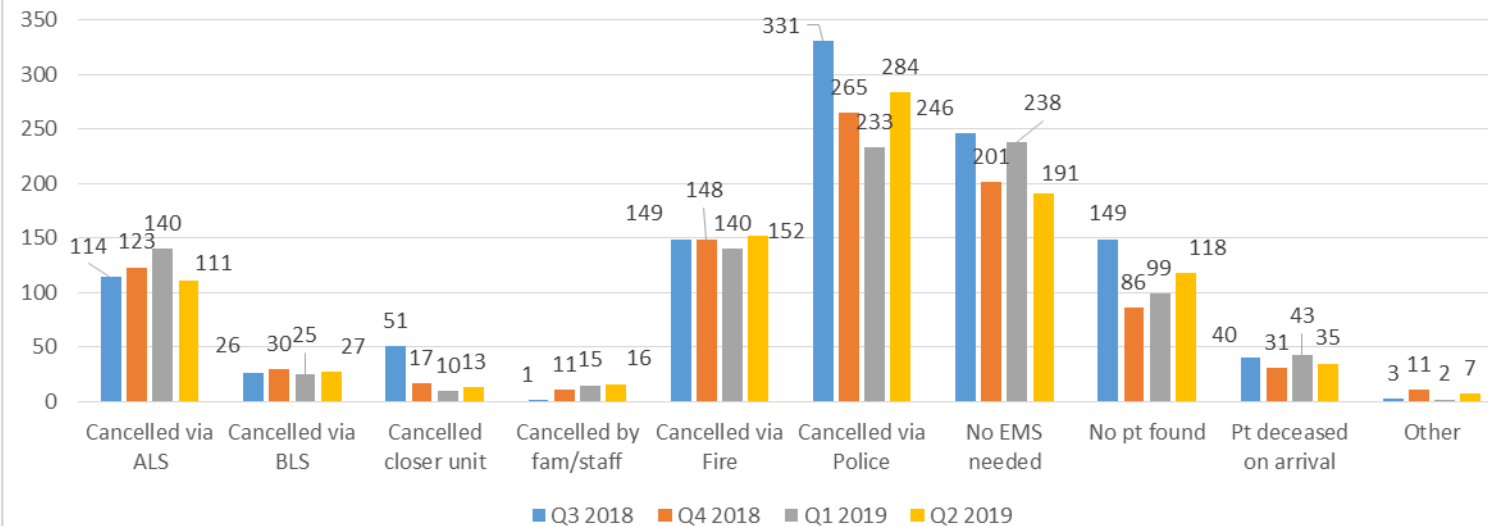
BLS No Transports: Years View



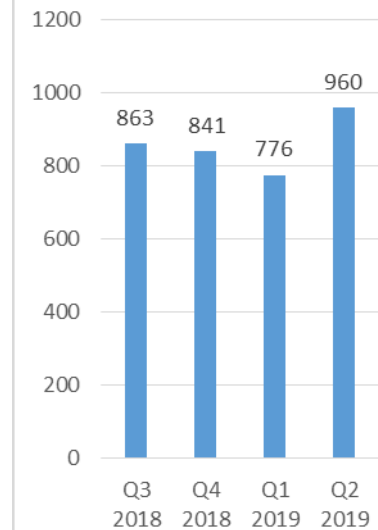
Pt refusal- Year



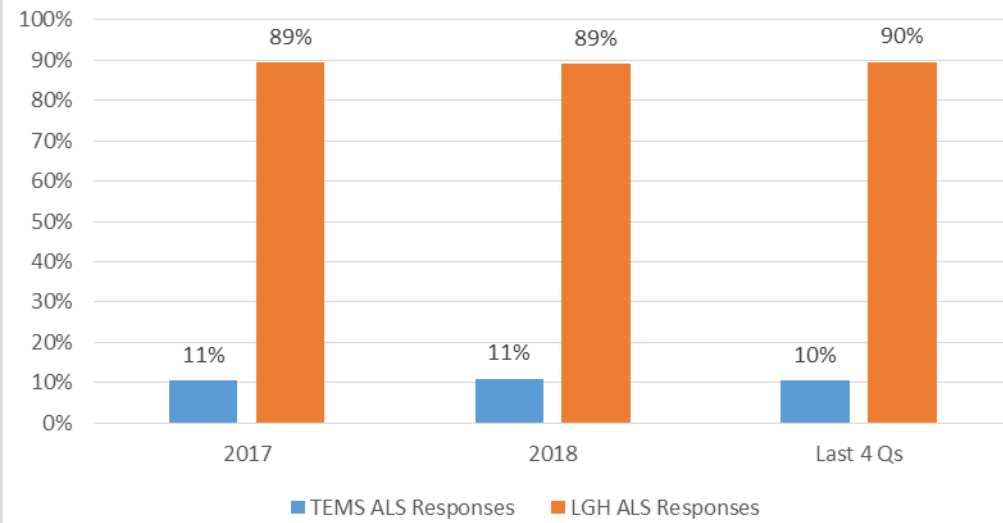
BLS No Transports: Qrts View



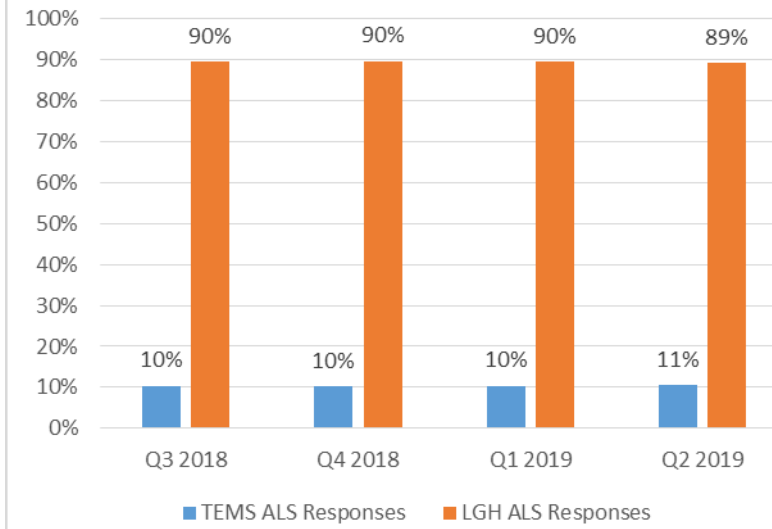
Pt refusal-Qrts



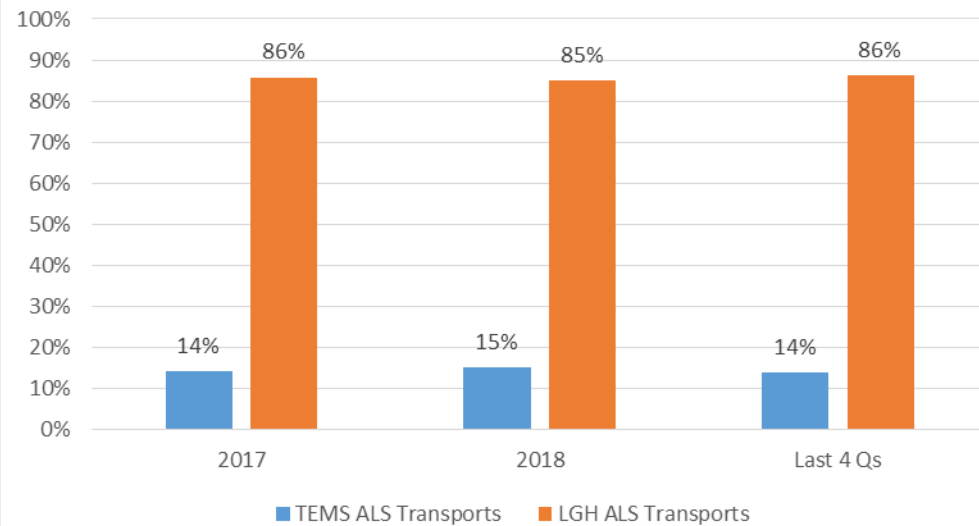
Q2 2019 ALS Response %: Yearly View



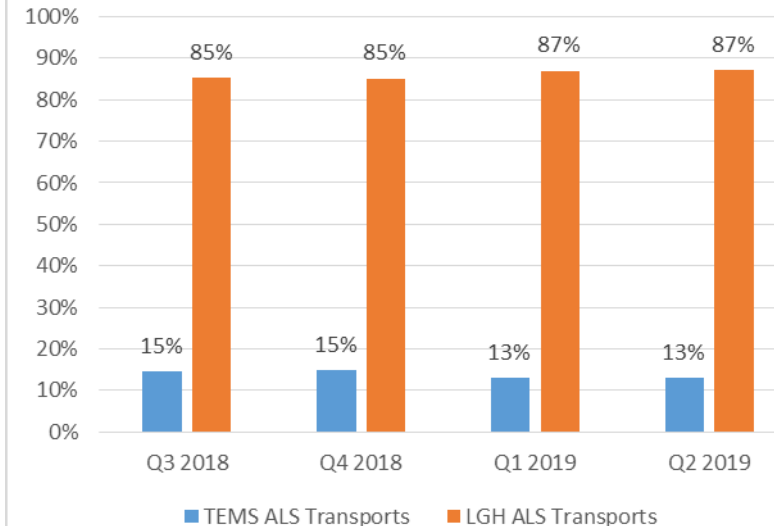
Q2 2019 ALS Response %: Qrts View

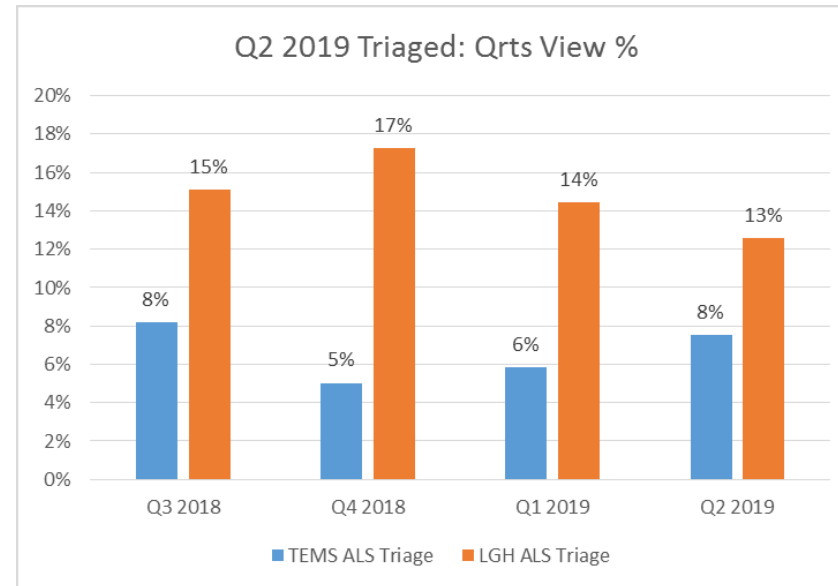
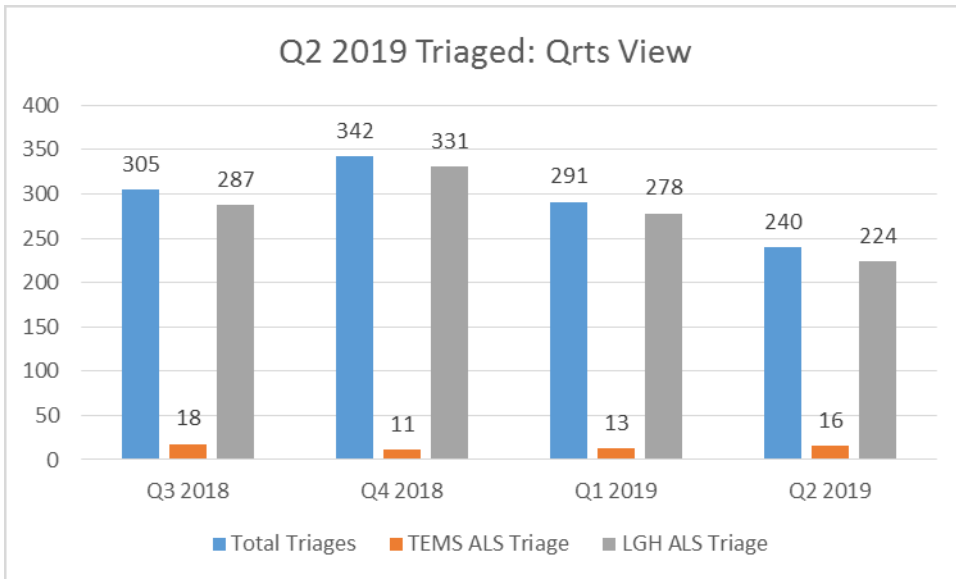
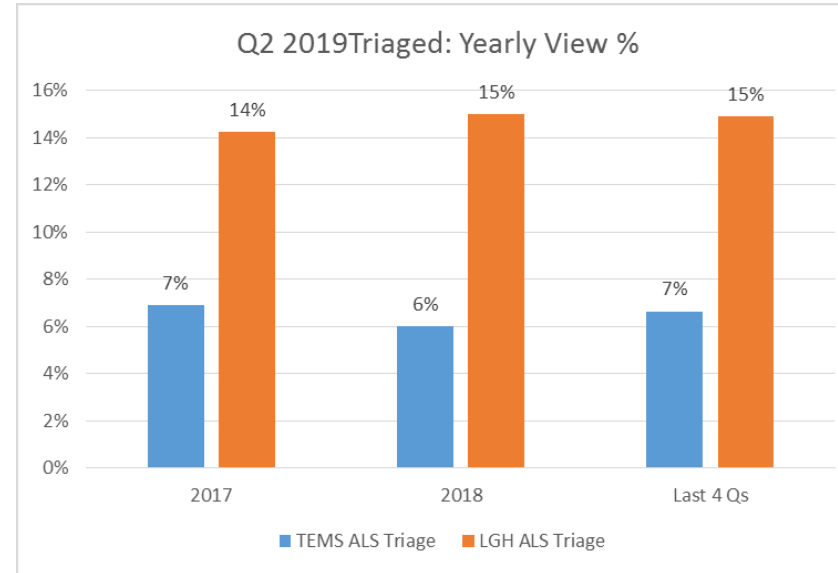
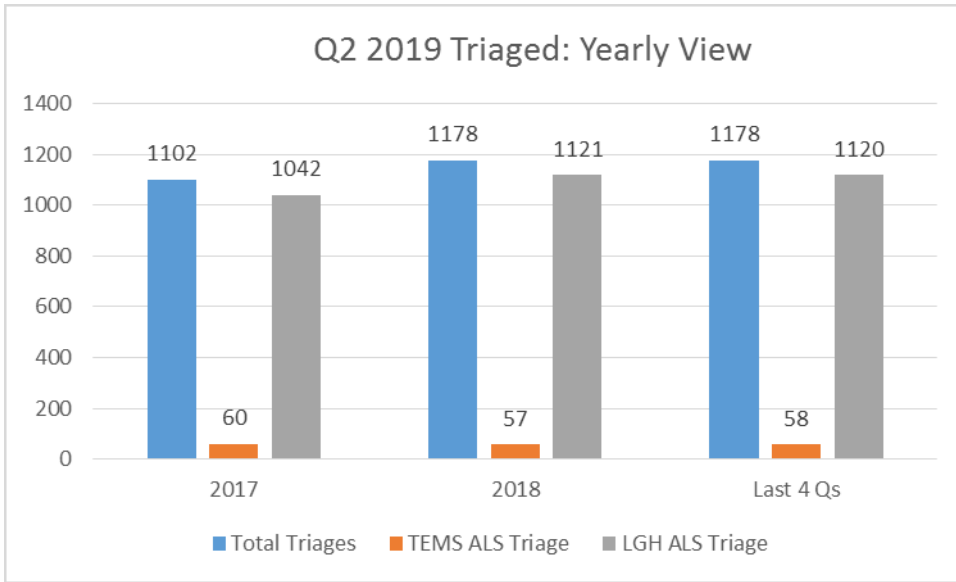


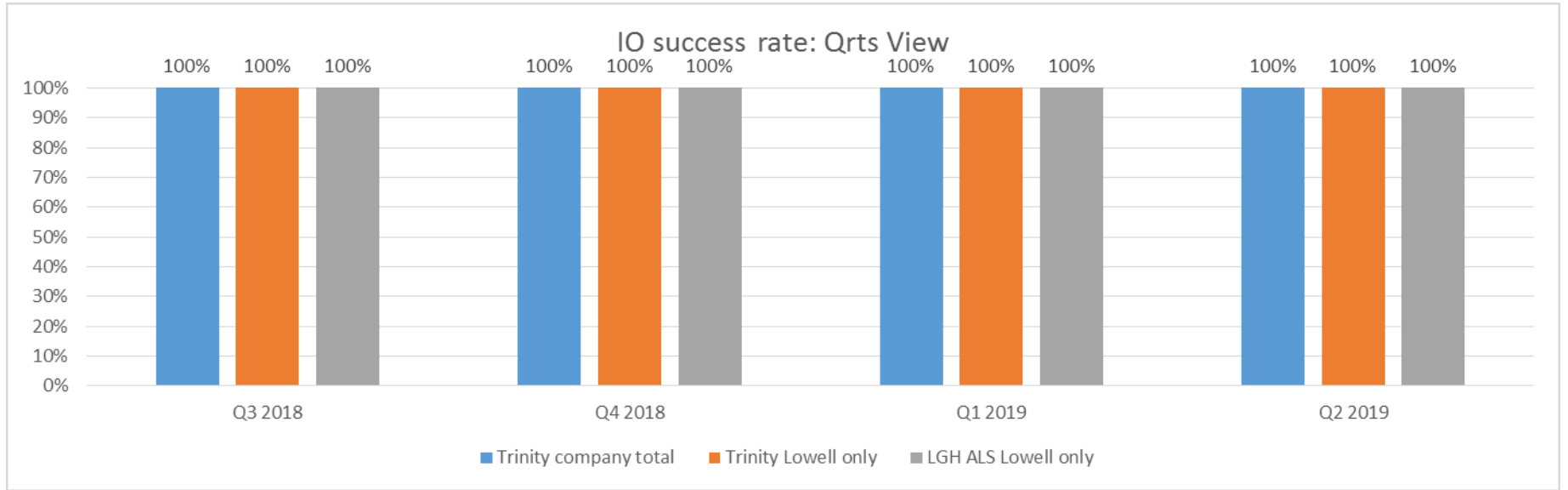
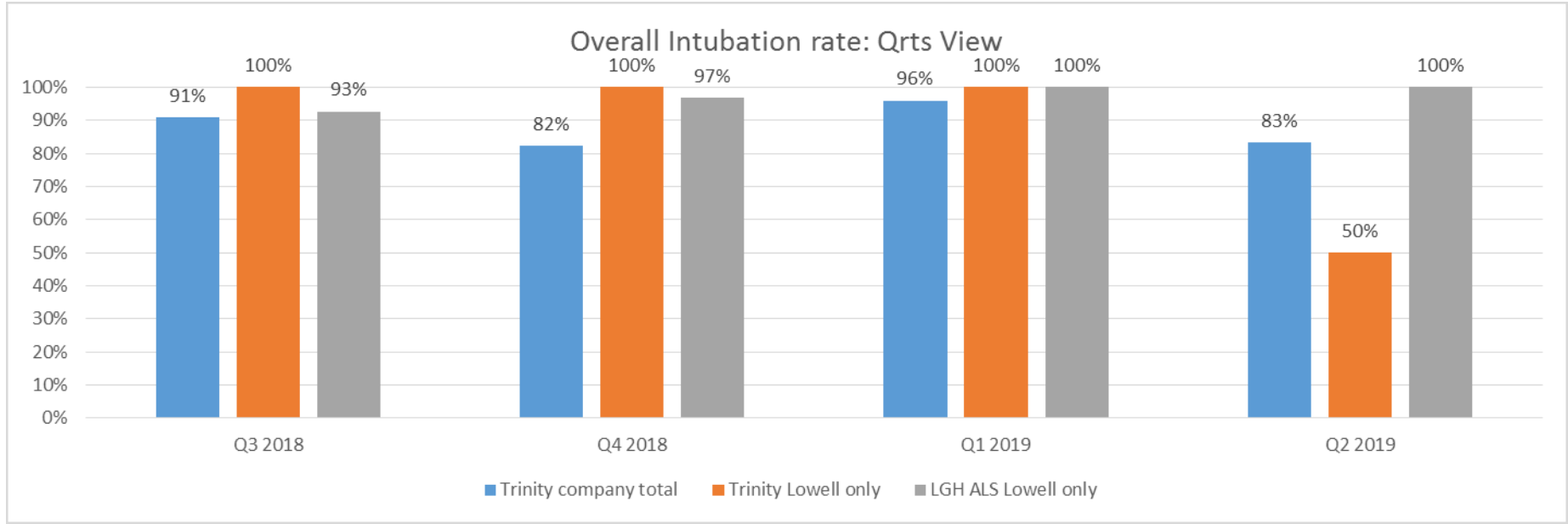
Q2 2019 ALS Transports %: Yearly View



Q2 2019 ALS Transports %: Qrts View







Last Name ▼	First Name ▼	Title ▼	Hire Date ▼	Position ▼	MA Certification # ▼	National Registry C ▼
Borrelli	Anthony	(PT) EMT-B	2019-06-17	EMT-B	E0915079	E3443802
Khalil	Tara	(PT) EMT-B	2019-06-17	EMT-B	E0910673	E3340738
Lesnever	Tristan	(PT) EMT-B	2019-06-17	EMT-B	E0915431	E3461682
Sarpong	Alexis	(PT) EMT-B	2019-06-17	EMT-B	E0915438	E3460282
Thomas	Matthew	(FT) EMT-B	2019-06-17	EMT-B	E0915354	E3461507
Zambrano	Alejandro	(PT) EMT-B	2019-06-17	EMT-B	E0912003	E3284783
Grzyb	Tyrus	(PT) EMT-B	2019-05-13	EMT-B	E0913318	E3406898
Loukos	Efstratios	(PT) EMT-B	2019-05-13	EMT-B	E0911017	E3328764
Schille	Cameron	(PT) EMT-B	2019-05-13	EMT-B	E0911969	E3349108
Smith	Derek	(FT) EMT-B	2019-05-13	EMT-B	E0910945	E3346579
Catarino	Justina	(FT) EMT-B	2019-04-22	EMT-B	E0914312	E3435027
Kilbride	Cote	(PT) EMT-B	2019-04-22	EMT-B	E0914922	E3446296
Wilson	Devon	(FT) EMT-B	2019-04-22	EMT-B	E0907813	E3261474

EMD- Direct to Trinity

							2017 Total	2018 Total	Last 4 Qs Total	Q3 2018	Q4 2018	Q1 2019	Q2 2019
Alpha (BLS-P3)							1405	1524	1426	352	409	303	362
Bravo (BLS-P2)							410	444	425	94	97	109	125
Charlie (ALS-P1)							679	722	669	162	175	185	147
Delta (ALS-P1)							645	634	634	157	147	191	139
Echo (ALS-P1)							2	3	4	0	1	2	1
Total EMD by Trinity in Lowell							3141	3327	3158	765	829	790	774

The above data are direct calls to Trinity for patients in Lowell.

Alpha- results in BLS going no lights or sirens to the patient

Bravo- results in BLS going lights and sirens to the patient

Charlie, Delta, Echo- results in ALS and BLS going lights and sirens to the patient

As part of Trinity EMS's EMD accreditation a portion of the above calls are randomly selected for quality assurance review. TEMS reviews 25 EMD'ed calls per week. These 25 calls could come from any city or state.

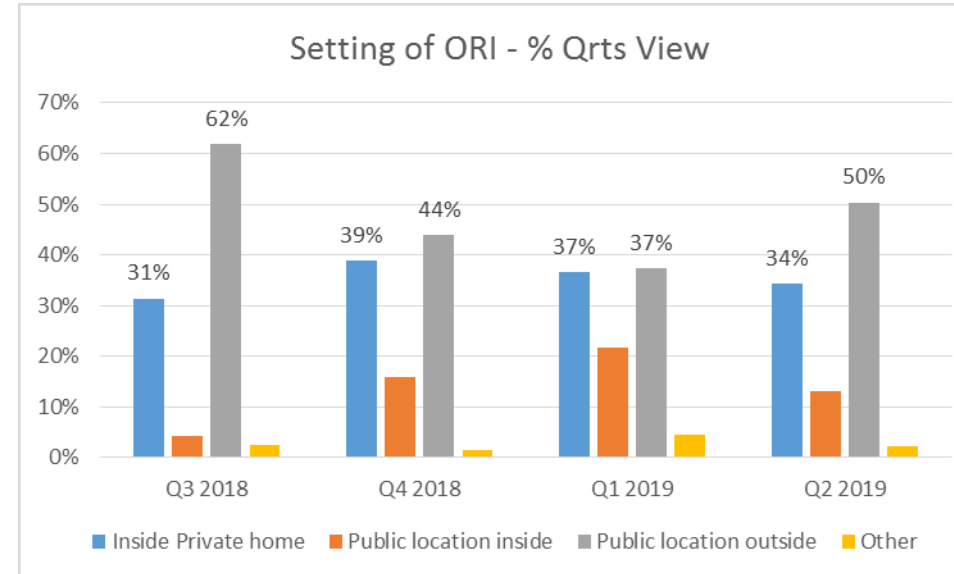
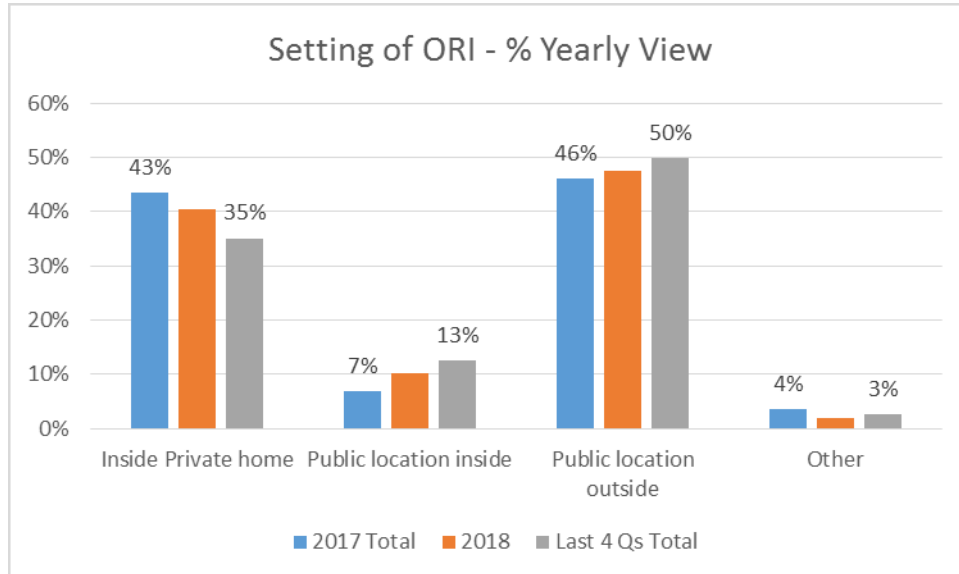
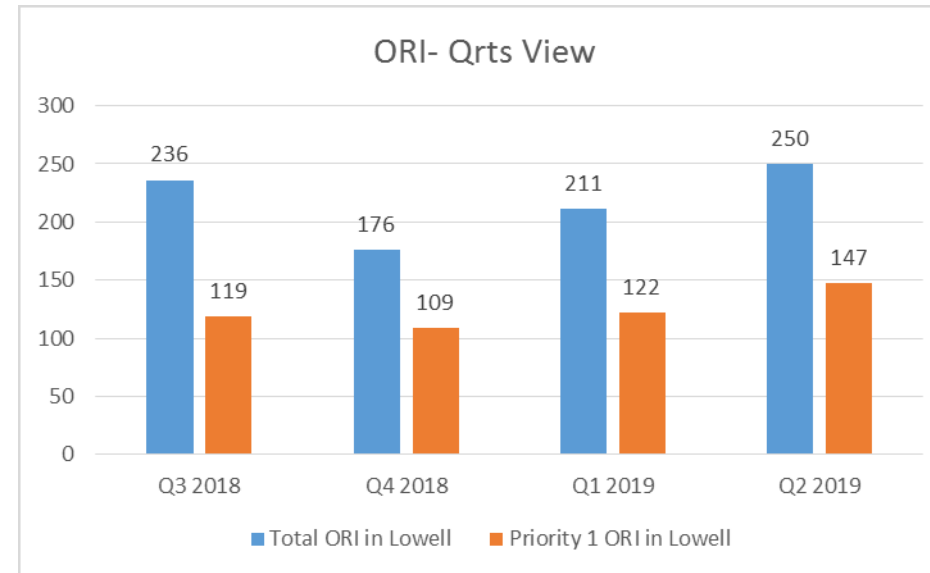
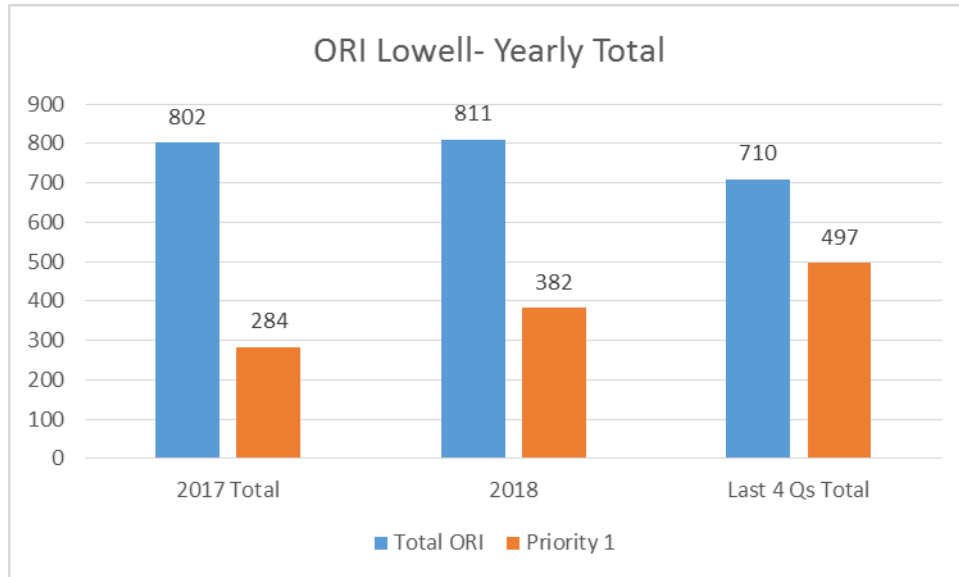
Potentially none or all 25 calls could be for patients in Lowell.

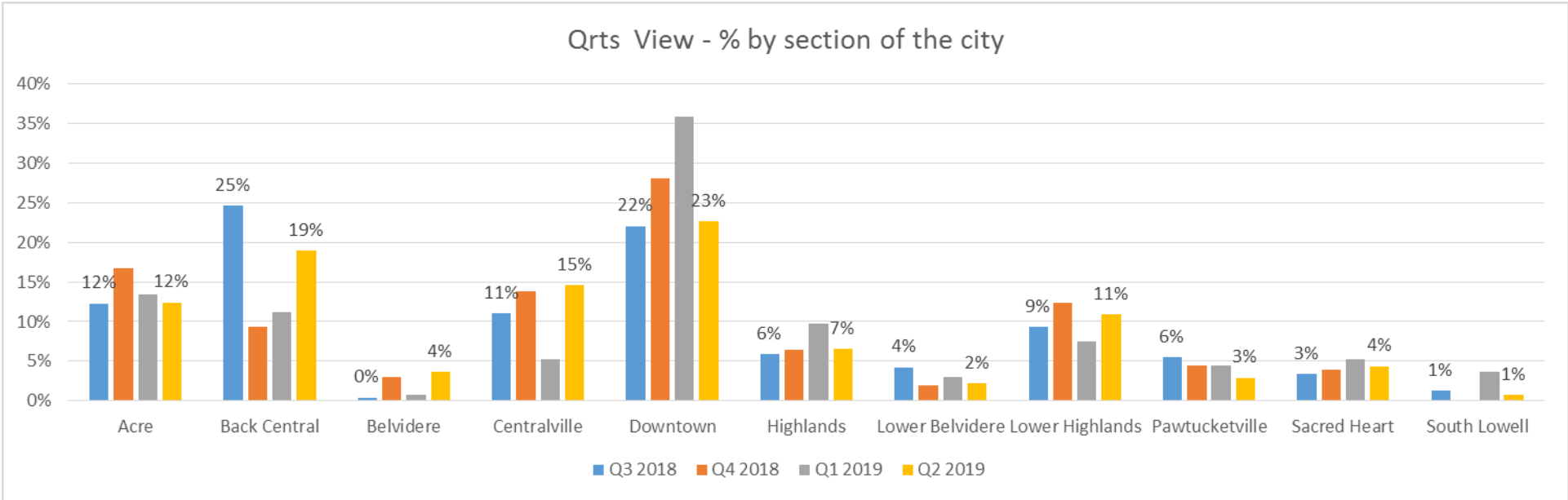
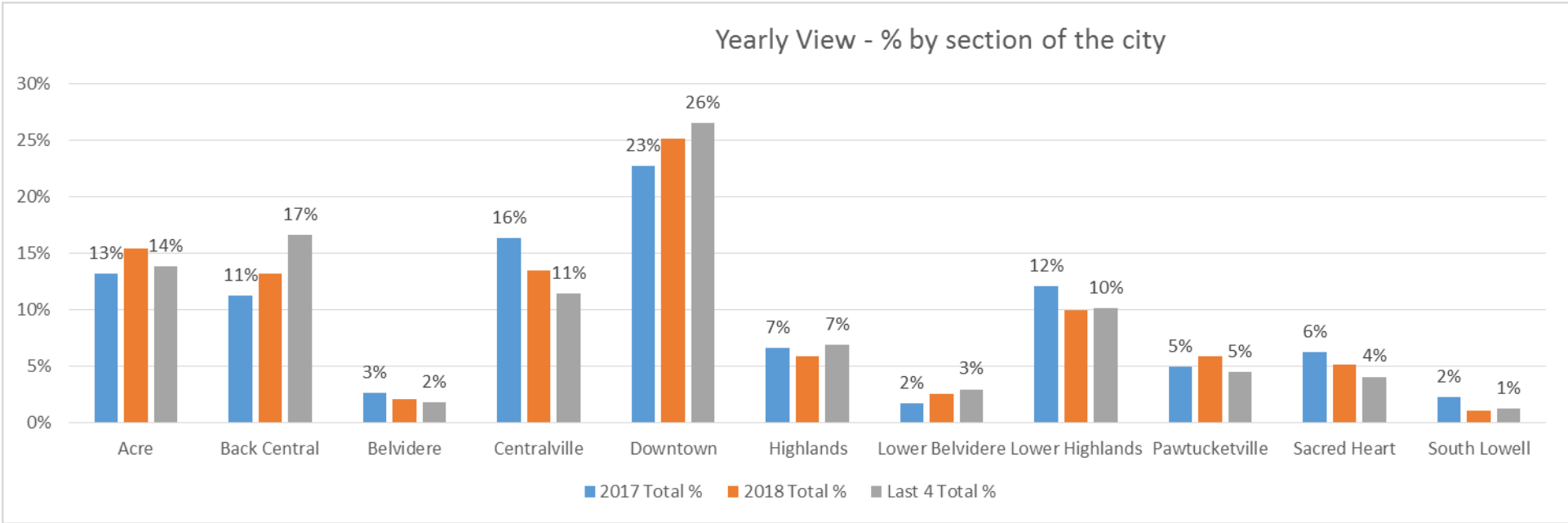
Trinity EMS an Accredited Center of Excellence through the International Academy of Emergency Dispatch. Trinity is 1 of 2 in Massachusetts and 1 of 184 of these centers in the world



							2017 Total		2018		Last 4 Qs Total		Q3 2018		Q4 2018		Q1 2019		Q2 2019	
Total ORI in Lowell							802		811		710		236		203		134		137	
Priority 1 ORI in Lowell							468		455		394		119		125		67		83	
Trinity wide ORI							1255		1206		1035		320		304		197		214	
Trinity wide Priority 1							752		708		617		175		192		112		138	
ORI in Lowell by setting:																				
Inside Private home							348	43%	327	40%	249	35%	74	31%	79	39%	49	37%	47	34%
Public location inside							55	7%	82	10%	89	13%	10	4%	32	16%	29	22%	18	13%
Public location outside							370	46%	386	48%	354	50%	146	62%	89	44%	50	37%	69	50%
Other							29	4%	16	2%	18	3%	6	3%	3	1%	6	4%	3	2%
Gender:																				
Female							234	30%	224	28%	212	30%	67	28%	61	30%	36	27%	48	35%
Male							558	70%	588	72%	499	70%	169	72%	143	70%	98	73%	89	65%
Females U20							6	3%	2	1%	4	2%	0	0%	1	2%	1	3%	2	4%
Female 20-29							70	30%	78	35%	59	28%	23	34%	15	25%	9	25%	12	25%
Female 30-39							101	43%	79	35%	80	38%	24	36%	22	36%	15	42%	19	40%
Female 40 - 49							37	16%	36	16%	40	19%	11	16%	12	20%	8	22%	9	19%
Female 50- +							20	9%	29	13%	29	14%	9	13%	11	18%	3	8%	6	13%
Male U20							2	0%	2	0%	2	0%	1	0%	1	1%	0	1%	0	0%
Male 20-29							163	29%	178	30%	141	28%	54	28%	36	32%	33	25%	18	34%
Male 30- 39							194	35%	178	30%	152	30%	43	30%	49	25%	31	34%	29	32%
Male 40 - +							115	21%	124	21%	99	20%	38	20%	29	22%	13	20%	19	13%
Male 50 - +							84	15%	106	18%	105	21%	33	21%	28	20%	21	20%	23	21%

		2017 Total		2018 Total		Last 4 Qs Total		Q3 2018		Q4 2018		Q1 2019		Q2 2019	
	Acre	106	13%	125	15%	98	14%	29	12%	34	17%	18	13%	17	12%
	Back Central	90	11%	107	13%	118	17%	58	25%	19	9%	15	11%	26	19%
	Belvidere	21	3%	17	2%	13	2%	1	0%	6	3%	1	1%	5	4%
	Centralville	131	16%	109	13%	81	11%	26	11%	28	14%	7	5%	20	15%
	Downtown	182	23%	204	25%	188	26%	52	22%	57	28%	48	36%	31	23%
	Highlands	53	7%	48	6%	49	7%	14	6%	13	6%	13	10%	9	7%
	Lower Belvidere	14	2%	21	3%	21	3%	10	4%	4	2%	4	3%	3	2%
	Lower Highlands	97	12%	81	10%	72	10%	22	9%	25	12%	10	7%	15	11%
	Pawtucketville	40	5%	48	6%	32	5%	13	6%	9	4%	6	4%	4	3%
	Sacred Heart	50	6%	42	5%	29	4%	8	3%	8	4%	7	5%	6	4%
	South Lowell	18	2%	9	1%	9	1%	3	1%	0	0%	5	4%	1	1%
Home towns of patients:															
	Lowell	450	66%	487	60%	408	57%	135	57%	109	54%	78	58%	86	63%
	Dracut	22	3%	39	5%	38	5%	10	4%	18	9%	4	3%	6	4%
	Billerica	16	2%	26	3%	30	4%	8	3%	10	5%	7	5%	5	4%
	Chelmsford	20	3%	18	2%	17	2%	9	4%	2	1%	2	1%	4	3%
	Tewksbury	14	2%	16	2%	13	2%	6	3%	3	1%	2	1%	2	1%
	Other/unknow	165	24%	225	28%	204	29%	68	29%	61	30%	41	31%	34	25%





ALS:	Life Support- may refer to vehicles staffed with a least one paramedic or refer to a paramedic level of patient care. Trinity Emergency ALS vehicles are staffed with two paramedics.
A Response:	Is defined as dispatching or sending an ambulance to a request for service. In this report , a response is further sorted to include only emergency responses. These numbers do not include routine transfers such as dialysis patients or radiation treatment patients.
A Transport:	Is defined as taking a patient in an ambulance to a destination.
BLS:	Basic Life Support- may refer to a vehicle staffed with two emergency medical technicians (EMT) or an EMT level of patient care. Trinity BLS ambulances are staffed with two EMT's
EMD:	Emergency Medical Dispatch- a nationally recognized system whereby dispatchers are trained and follow a specific protocol to ascertain the nature of illness/injury and provide patient care instructions to the caller until the First Responders or ambulance arrives.
Intubation Attempt:	Is defined as insertion of the laryngoscope blade into the oral cavity for the purpose of inserting an endotracheal tube.
MAI:	Medication Assisted Intubation is generally regarded as facilitating an intubation with the use of sedatives. In Massachusetts how ever, this term includes the use of Paralytics. The Massachusetts MAI program is not part of the standard scope of practice for Paramedics. It is controlled through the Department of Public Health's Office of Emergency Medical Services Medical Services Committee.
On scene time:	The amount of time that has elapsed from the moment the ambulance is on scene to the moment the ambulance begins transport or is released back into service
Out of chute time:	The amount of time that elapses from the moment when the ambulance is dispatched to the moment the ambulance begins moving towards the call.
On time performance score:	Is the percentage of calls that meet or exceed the response time criteria.
Request for service:	When a dispatcher receives request for an ambulance usually via telephone or radio
Response time:	The amount of time that has elapsed from the moment the call is completely entered into the dispatch system to the moment the ambulance arrives on scene.

RSI:	Rapid Sequence Intubation is the facilitation of intubation using both sedatives and paralytics
Service Zone Plan:	M.G.L. Part 1 Title XVL Chpt. 11C Section 1 defines as "a geographic area defined by and comprised of one or more local jurisdictions, in which a local jurisdiction may select and the department shall designate an EMS first response service and an ambulance service to provide EMD first response and primary ambulance response to the public within the defined area, pursuant to section 10." Massachusetts Regulations 105 CMR 170.249.
Transport time:	The amount of time that has elapsed from the moment the ambulances leaves the scene with a patient to the moment the ambulance arrives at the receiving facility
Triage down:	When a paramedic units arrives at the patients side and based on the patient condition determines that the patient may be treated and transported at the BS level. Note- There is no protocol for this practice, however, OEMS does address it though an administrative advisory: A/R5=620.

- The following document is a detailed outline of the reporting process used by Trinity EMS.
- **Responding lights and sirens**
 - From Lowell 911
 - All calls require a lights and sirens response regardless of the patients condition except
 - Needle pick ups
 - Pt carry down/up without a medical issue
 - Unless requested to response without lights and sirens by the 911 center.
 - Direct to Trinity calls that Trinity EMD's
 - Bravo, Charlie, Delta, and Echo go with lights and sirens
 - Alpha or Omega level calls go without lights and sirens
 - Direct to Trinity that Trinity doesn't EMD
 - Response lights and sirens for any patients. Unless the calling agency EMD'ed the call to a non-urgent level.
 - This set of calls would include call from UMASS PD, or other ambulance services.
- Incident
 - A request for or by someone within the city limits of Lowell that requires an EMS response.
 - Each request is counted as 1 incident
 - A patient that gets a BLS unit for back pain is counted as 1 incident
 - A 10 car MVC with 20 patients requiring 6 BLS, 2 ALS, and 2 helicopters is counted as 1 incident
- Responses
 - Counts the number of occurrences when EMS vehicles response lights and sirens to a call.
 - An ALS and BLS unit response to a patient with chest pain, that counts as 2 responses. (2 vehicles put their lights on)
- Times:
 - All below are from incidents
 - BLS
 - Priority 1, and 2 incident responses
 - Includes 911 and calls direct to Trinity
 - Any call directly to Trinity from another call center that would require an emergent response
 - (IE- Umass Lowell calls Trinity for a chest pain)
 - Any Charlie, Delta, Echo response called and EMD'ed by Trinity
 - Includes call when ALS and BLS responded as well as call when just BLS responded.
 - **Q# year# Performance score**
 - Is the created by
- Dividing the number of incidents BLS units responded to.

- Into the number of those calls that shows a response time over 08:00 or greater
 - Calls excluded
 - Delta level calls EMD'ed by Trinity that had a total response time of greater than 07:59
- **Avg out of chute**
 - Time from Trinity designated and selected ambulance was assigned call to selected crew to the time selected vehicles starts movement towards this call
 - Excluded-
 - Any time showing more than 10 minutes is excluded as likely time stamp missing
- **Avg response time**
 - From Call saved by Trinity dispatch to time ambulance arrived at geocoded location of the call.
 - Within Trinity CAD- The call saved time is called "call taken". This time is created after Trinity dispatch get an address, apartment, complaint, and any other info 911 passed along.
 - Excluded-
 - Charlie, delta, Echo, and Omega calls direct and EMD'ed by Trinity that result in a response time over 07:59
 - Any time showing more than 20 minutes is excludes as likely time stamp missing
- **Avg on scene time**
 - Includes only calls included above
 - Time from crew arrival on site to time vehicle:
 - Clears
 - Occupies to the hospital
 - Excluded
 - Any time showing more than 30 minutes is excludes as likely time stamp missing
- **Avg transport time**
 - Includes only calls included above
 - Time from crew: Clears or arrives to the hospital
 - Excluded
 - Any time showing more than 20 minutes is excludes as likely time stamp missing
- **# of events >7:59 or greater**
 - Includes any call that includes calls included from reasons earlier in the section
 - That's response time is greater than 07:59
 - Excluded
 - Any call where the unit is canceled prior to arrival
- Called that were EMD'ed by Trinity

- No other calls are excluded- weather, 911 call volume as examples are outliers counted and categories in the “BLS reasons over 07:59”
- **# of events using Non Trinity BLS units**
 - Requests for ambulances to Trinity that Trinity was not able to send a BLS unit on within the State mandated 5 minute dispatch time for
 - Any 911 priority 1 or 2 call
 - Any call directly to Trinity from another call center that would require an emergent response
 - (IE- UMass Lowell calls Trinity for a chest pain)
 - Any Charlie, Delta, Echo response called and EMD’ed by Trinity
- ALS
 - The only difference from the BLS is the ALS times start at dispatch, and not call created
- **BLS Outliers:**
 - For any BLS response over 07:59
 - Trinity will make note and report in this section the number of concurrent emergencies in Lowell at the time this call is created.
 - Includes 911 calls and calls direct to Trinity
 - Non-emergency and call in other cities will not be counted
- **BLS Reasons over 07:59**
 - For any BLS response over 07:59
 - Trinity will conduct a route cause analyses as to the reason for the response time
 - Trinity will take note and report in this section. These reasons will be grouping into 1 of the following
 - Couldn’t location house/lost
 - Crew passes the geo-coded location for the address more than once without getting on arrival
 - Crew took long route
 - Crew did not take the fastest route from their dispatch location to the pickup location
 - Distance
 - Usually this is used when a
 - Dispatcher gives the call out within 60 seconds
 - The crew is enroute within 120 seconds
 - Posting is happening
 - The ambulance crew went the most direct route
 - Circumstances include
 - If there is a second call in a sector of the city before reposting. 2nd call in downtown, this ambulance to the second call has two reports a much greater distance to the patient.

- Also the extra time could be traffic, school buses, and people not willing to move. I I
 - Gets used if none of the others fit.
 - ALSO
 - If the address is far away from one of the top 4 posting locations
 - Posting location 1 is Chelmsford and Westford
 - Posting location 2 is Bridge & W 6th
 - Posting location 3 is Callery Park
 - Posting location 4 is Mammoth and 4th
 - Far away is not defined in miles. More looking at the map and lacking a different issue this is selected.
- Dispatch chute
 - A Trinity EMS dispatch took more than 59 seconds from call saved to dispatch. This could be due to error or workload
- Highway
 - The location of the call is a highway. Accessing highway locations usually takes extra time do to divided 1 way road
- Out of Chute
 - The Trinity EMS crew took at least 120 seconds to get from a dispatched stage to the ambulance physically moving towards the call
- GPS fail
 - If our ambulance tracking program is not running we cannot prove a response time or a root cause.
- TEMS Dispatch error
 - An example of this is TEMS dispatcher entering the wrong house or address.
- Weather
 - Did weather impact posting or travel time. Usually snow/ extreme cold or heat
- 911 Call volume
- Was this call more than the 4th emergency in Lowell at this time